THAT WHICH IS CLAIMED IS:

1. A method (300) of compressing a digital image including a matrix of elements each one consisting of at least one component of different type representing a pixel, the method comprising the steps of:

splitting (340) the digital image into a plurality of blocks and calculating, for each block, a group of DCT coefficients for the components of each type,

quantizing (350a-355a) the DCT coefficients of each group using a corresponding quantization table scaled by a gain factor for achieving a target compression factor,

characterized by the steps of

further quantizing (350-355) the DCT coefficients of each group using the corresponding quantization table scaled by a pre-set factor,

arranging (360) the further quantized DCT coefficients in a zig-zig vector,

calculating (365-370) a basic compression factor provided by the quantization table scaled by the pre-set factor as a first function of the zig-zag vector,

estimating (375) the gain factor as a second function of the basic compression factor, the second function being determined experimentally according to the target compression factor.

2. The method (300) according to claim 1, wherein the step (365-370) of calculating the basic compression factor includes the steps of:

determining (365) a first number of bits required to encode the zig-zag vector,

calculating (370) the basic compression factor summing the first number of bits with a second number of bits required to encode control values, and diving the sum by the number of elements of the digital image.

3. The method (300) according to claim 1 or 2, wherein the second function is a quadratic function.

4. The method (300) according to any claim from 1 to 3, further comprising the steps of:

storing a plurality of sets of parameters representing the second function, each set of parameters being associated with a corresponding value of the target compression factor,

selecting (310) an image quality and determining a current value of the target compression factor as a function of the selected image quality,

reading (375) the parameters associated with the current value of the target compression factor and estimating the gain factor using the read parameters.

5. The method (300) according to any claim from 1 to 4, wherein the pre-set factor is determined experimentally according to the target compression factor.

6. The method (400) according to any claim from 1 to 5, further comprising the steps of:

storing (345) the DCT coefficients onto a working memory and concurrently performing the steps of

quantizing (350-355) the DCT coefficients of each group using the corresponding quantization table scaled by the pre-set factor, arranging (360) the quantized DCT coefficients in the zig-zig vector, calculating (365-370) the basic compression factor, and estimating (375) the gain factor,

reading (378) the DCT coefficients from the working memory for performing the step of quantizing (350a-355a) the DCT coefficients of each group using the corresponding quantization table scaled by the gain factor.

7. A device (115) for compressing a digital image including a matrix of elements each one consisting of at least one digital component of different type representing a pixel, the device (115) comprising means (145) for splitting the digital image into a plurality of blocks and calculating, for each block, a group of DCT coefficients for the components of each type, means (150) for quantizing the DCT coefficients of each group using a corresponding quantization table scaled by a gain factor for achieving a target compression factor,

characterized in that

the device (115) further includes means (150) for further quantizing the DCT coefficients of each group using the corresponding quantization table scaled by a pre-set factor, means (155) for arranging the further quantized DCT coefficients in a zig-zig vector, means (170,190) for calculating a basic compression factor provided by the quantization table scaled by the pre-set factor as a first function of the zig-zag vector, and means (170) for estimating the gain factor

as a second function of the basic compression factor, the second function being determined experimentally according to the target compression factor.

8. The device (115) according to claim 7, further comprising a quantization unit (150) which quantizes the DCT coefficients of each group using the corresponding quantization table scaled by the gain factor in a first operative condition and which quantizes the DCT coefficients of each group using the corresponding quantization table scaled by the pre-set factor in a second operative condition.

9. The device (115) according to claim 7 or 8, wherein the means (170,190) for calculating the basic compression factor includes means (190) for determining a first number of bits required to encode the zig-zag vector, and means (170) for calculating the basic compression factor summing the first number of bits with a second number of bits required to encode control values and diving the sum by the number of elements of the digital image

10. The device (115) according to claim 9, further comprising a DCT unit (145) comprising the means for splitting the digital image and for calculating the DCT coefficients, a zig-zag unit (155) comprising the means for arranging the further quantized DCT coefficients in the zig-zig vector, a memory unit (175) for storing the quantization tables, a counting unit (190) comprising the means for calculating the first number of bits, a processor unit (170) for controlling the device (115), communication

means (120) for connecting the DCT unit, the quantization unit, the zig-zag unit, the memory unit, the counting unit and the processor unit therebetween, the processor unit (170) calculating the basic compression factor and estimating the gain factor under the control of a program stored onto the memory unit (175).

11. A digital still camera (100) comprising the device (115) of any claim from 7 to 10.